

IN THE ABSTRACT OF THE DISCLOSURE

Replace the Abstract of the Disclosure currently of record with the attached new Abstract of the Disclosure.

Disclosed is a producing method of a semiconductor device comprising: film thinning a silicon oxide film by heating the silicon oxide film formed after a surface of a silicon substrate is etched by chemical liquid, and one of thermal oxidizing by heating the thinned silicon oxide film to oxidize the silicon oxide film by gas including at least oxygen, and plasma oxidizing the thinned silicon oxide film by plasma discharged gas including at least oxygen.

~~Disclosed is a method for manufacturing a semiconductor device which comprises a film thinning step for thinning a silicon oxide film, which is formed after etching a silicon substrate surface with a chemical solution, by heating, and a thermal oxidation step for oxidizing the thinned silicon oxide film by heating while using a gas containing at least oxygen or a step for oxidizing the thinned silicon oxide film using a plasma discharged gas containing at least oxygen.~~